# Before the FEDERAL COMMUNICATIONS COMMISSION Washington, D.C. 20554

In the Matter of	)	
	)	
Revision of the Commission's Rules to	)	CC Docket No. 94-102
Ensure Compatibility with Enhanced	)	
911 Emergency Calling Systems	)	
	)	
Wireless E911 Phase II Implementation	)	
Plan of Nextel Communications, Inc. and	)	
Nextel Partners, Inc.	)	

## NEXTEL PARTNERS, INC. PHASE I AND PHASE II E911 QUARTERLY REPORT August 02, 2004

To: Chief, Wireless Telecommunications Bureau Chief, Enforcement Bureau

## **INTRODUCTION**

Pursuant to the October 12, 2001 Order of the Federal Communications

Commission ("Commission" or "FCC") in CC Docket No. 94-102, Nextel Partners, Inc.

("Nextel Partners") respectfully submits this Enhanced 911 ("E911") Quarterly Report on its implementation of Phase I and Phase II E911.

Nextel Partners has deployed 173 public safety answering points ("PSAPs") with Phase II E911 service since it achieved its first Phase II benchmark per Nextel's Waiver Order.<sup>2</sup> During this same period, Nextel Partners brought its total Phase I deployments to 526 PSAPs. Since its February 2, 2004 report, Nextel Partners continues to work toward its next benchmark (ensuring that 50% of all new handsets activated from December 01,

<sup>&</sup>lt;sup>1</sup> In the Matter of Revision of the Commission's Rules To Ensure Compatibility With Enhanced 911 Emergency Calling Systems, Wireless E911 Phase II Implementation Plan of Nextel Communications, Inc. and Nextel Partners, Inc., Order, CC Docket No. 94-102, FCC 01-295, released October 12, 2001 ("Nextel's Waiver Order").

<sup>&</sup>lt;sup>2</sup> Per Nextel's Waiver Order, Nextel Partners was required to begin selling and activating an A-GPS capable handset on October 1, 2002.

2003, to November 30, 2004, are A-GPS capable), and continues to deploy its valid requests for service within the six-month window.

As demonstrated by these activities, Nextel Partners is committed to providing its customers and public safety officials with Phase II E911 as soon as possible.

Nonetheless, the number of invalid Phase I and Phase II requests remain an issue, with the totals declining slightly to 22 and 13, respectfully. The total of "no action" requests (those requests that can not processed because Nextel Partners either has no sites in the PSAP jurisdiction or the current sites are currently routed to another PSAP) has increased to 124. The majority of these requests continue to be Phase I.

Herein, Nextel Partners provides an update on all relevant events impacting handset upgrades and network infrastructure necessary to enable Phase II E911 location capabilities as well as a listing of all deployed and pending requests for Phase I and Phase II E911 service and the status of each request.

## **BACKGROUND**

In its Waiver Request seeking an October 2002 Phase II E911 implementation date, Nextel Partners affirmed that it could not launch on October 1, 2001 because its integrated digital enhanced network ("iDEN") air interface, which is used by few other carriers and only on a regional basis, is supported by a single manufacturer—Motorola. Nextel Partners and Nextel Communications ("Nextel's"), along with Motorola and the other vendors required to support E911, devoted substantial resources to develop, test, and install network hardware and software, and to develop, test and launch A-GPS capable iDEN handsets. Because of these complexities and the fact that no GPS capability existed for the iDEN platform, it was not technologically possible to develop

an iDEN A-GPS handset capable of delivering FCC-compliant automatic location information ("ALI") prior to October 1, 2002.

Pursuant to Nextel's Waiver Order, in which the Commission noted that Nextel Partners faced "special circumstances that affect its deployment of Phase II," the Commission imposed the following Phase II E911 implementation benchmarks:

October 1, 2002: Begin selling and activating A-GPS-capable handset;

December 31, 2002: Ensure that at least 10% of all new handsets activated are

A-GPS-capable;

December 1, 2003: Ensure that at least 50% of all new handsets activated are

A-GPS-capable;

December 1, 2004: Ensure that 100% of all new digital handsets activated are

A-GPS-capable;

December 31, 2005: 95% of all subscriber handsets in service are A-GPS-

capable.4

To date Nextel Partners has achieved its first two benchmarks, continues to work toward its next benchmark (ensuring that 50% of all new handsets activated from December 1, 2003 to November 30, 2004 are A-GPS capable), and continues to deploy its valid requests for E911 service at a rapid pace. However, myriad issues including inadequate funding at local, state and federal levels, prevent the vast majority of PSAPs throughout the country from receiving and using a caller's latitude and longitude

<sup>&</sup>lt;sup>3</sup> Nextel's Waiver Order at ¶19. The Commission also stated "it is reasonable to expect that Nextel Partners might find it more difficult to meet the same schedule as carriers employing the more common air interfaces, because location technology vendors and equipment manufacturers will have substantial incentives to introduce ALI products first for those segments of the market with larger market share. In addition, iDEN is a proprietary Motorola technology and, to the extent that a location technology requires new or modified handsets and network equipment, Nextel must rely on Motorola as a sole source provider." *Id.* 

<sup>&</sup>lt;sup>4</sup> Nextel's Waiver Order at ¶37.

information and, given the status quo, most PSAPs likely will not be ready in the near future.

#### **DISCUSSION**

#### A. A-GPS Capable Handsets

Following the launch of its first A-GPS capable handset, the i88s, on October 1, 2002, in compliance with its first Phase II handset deployment benchmark, Nextel Partners has continued to introduce new A-GPS handsets, while phasing out non-A-GPS handsets, to drive penetration of location functionalities into its subscriber base. As of today, all handsets Nextel Partners' offers for sale are A-GPS capable with only one exception, the BlackBerry 7510.<sup>5</sup> Nextel Partner's complete A-GPS capable handset portfolio includes the following models: i58sr, i88s, i205, i305, i530, i730, and the eleven i736 NASCAR Nextel Cup series handsets.<sup>6</sup> Nextel Partners is actively marketing these handsets' location capabilities and taking steps above and beyond relying on customer churn to put these A-GPS compatible phones into the hands of its users.

The FCC requires that handset based Phase II solutions provide the location of wireless calls within 50 meters for 67 percent of calls and within 150 meters for 95 percent of calls.<sup>7</sup> Based on the guidelines provided by the FCC's Office of Engineering and Technology, Nextel Partners and Nextel Communications —via an independent

<sup>5</sup> Pursuant to the Nextel Waiver Order, Nextel is not required to meet the 100% A-GPS new handset

activation benchmark until December 1, 2004. Nextel plans to launch an A-GPS BlackBerry in compliance with that requirement.

<sup>6</sup> Nextel markets ten NASCAR Nextel Cup Series Driver Phones, each featuring the number and unique

<sup>&</sup>lt;sup>6</sup> Nextel markets ten NASCAR Nextel Cup Series Driver Phones, each featuring the number and unique design, colors, and signature of a particular driver. The lone NASCAR Nextel Cup Series Phone displays a checkered flag and an enlarged NASCAR Nextel Cup Series logo. Collectively, these handsets share the Motorola i736 model name.

<sup>&</sup>lt;sup>7</sup> 47 C.F.R. § 20.18(h)(2). *See also*, "Guidelines for Testing and Verifying the Accuracy of Wireless E911 Location Systems," OET BULLETIN No. 71 (April 12, 2000).

third-party consultant—completed its accuracy testing prior to launching and met the Commission's standards.

#### B. A-GPS Handset Issue

On July 19, 2004, Nextel Partners' sole handset vendor, Motorola, notified Nextel Partners of a problem affecting Motorola i205, i305, i530, i710, i730, i733, i736, and i830 handsets. A latent problem in these phones' software rendered all A-GPS services unusable as of midnight, Greenwich Mean Time, July 18. To ensure that the A-GPS software problem did not cause 911 calls from those particular handsets to drop, Nextel Partners temporarily disabled the network component of its Phase II E911 A-GPS service, thus transmitting to PSAPs the caller's voice, nearest cell site location, and callback number, *i.e.*, Phase I E911. All PSAPs, currently deployed Phase II, were contacted by July 21<sup>st</sup> and informed of our current condition and the steps we were taking to rectify the situation.

The permanent solution to this A-GPS problem requires a two-part fix. The first part is an upgrade to Nextel Communications and Nextel Partners' network to enable the transmission of latitude and longitude to Phase II deployed PSAPs. This network upgrade was successfully deployed in the network on July 25, 2004.

The second part of the solution requires updating the Motorola software in the impacted handsets, including those already in customers' hands as well as those in Nextel Partners' and Motorola's inventories. This upgraded handset software will enable these phones to once again generate a GPS fix for transmission to Phase II capable PSAPs.

Nextel Communications, Nextel Partners and Motorola have successfully developed and

tested the updated handset software and have begun the process of upgrading the impacted handsets.

The network upgrade noted above ensures that Nextel Partners' network is capable of identifying whether a 911 call is being placed from a handset updated with the new software, or from a non-updated phone. If a call is placed from an updated handset, that handset will automatically calculate its GPS location and Nextel Partners' network will transmit E911 Phase II location information (assuming the PSAP is capable of receiving Phase II information) to that PSAP. If a 911 call is placed from a handset without the updated software, the handset will not attempt a GPS fix so Nextel Partners will transmit Phase I information to the PSAP.

At this time, Nextel Partners does not have a specific timeline for updating the universe of affected phones on Nextel's network, but Nextel Communications, Nextel Partners and Motorola are making every effort to upgrade these handsets as soon as possible.

## C. <u>Handset Deployment Benchmarks</u>

Per Nextel's Waiver Order, to date Nextel Partners has been subject to the following handset benchmarks:

1. October 1, 2002: Begin selling and activating an A-GPS capable handset.

<sup>&</sup>lt;sup>8</sup> Importantly, the network changes required to differentiate between the handsets with old versus. new software has required that Nextel also upgrade the software in its i58 and i88 A-GPS handsets even though they were not directly impacted by the A-GPS software glitch.

<sup>&</sup>lt;sup>9</sup> Because the GPS software glitch causes the handset to shut down and automatically reboot upon achieving a GPS fix, the handsets without the updated software cannot be allowed to generate a GPS fix. Doing so would cause the 911 call to terminate at the moment GPS location information is generated.

Nextel Partners achieved this benchmark when it launched the A-GPS capable i88s and deployed Phase II service in Cattaraugus County, New York on October 14, 2002.

2. December 31, 2002 – November 30, 2003: At least 10% of new handsets activated during this period must be A-GPS capable. <sup>10</sup>

As of November 30, 2003, Nextel Partners had *exceeded* this benchmark.

During this period just over 10.4% of all new Nextel Partners handsets activated were A-GPS capable. Furthermore, Nextel Partners continues to aggressively work toward meeting its third benchmark. 12

3. December 31, 2005 Benchmark

At this time, Nextel Partners is placing the Commission on notice that it does not project that it can meet the December 31, 2005, benchmark of 95% A-GPS handset penetration. After months of careful evaluation of customer trends, upgrade activity and continued low churn rates on Nextel's network it has become clear that turning over nearly all of Nextel Partners' users to the

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<sup>&</sup>lt;sup>10</sup> When describing wireless carriers' reporting methodologies, the Commission stated that "one reasonable methodology to show compliance with the approved plan would be for Nextel Partners to demonstrate that it has complied with the required fractional percentage figures during the period beginning at the date on which that percentage takes effect and ending at the date of the next benchmark. Thus, for the 10 percent benchmark, Nextel Partners would demonstrate that at least 10 percent of the new handsets it activated during the period between December 31, 2002 and November 30, 2003 were A-GPS-capable." Nextel's Waiver Order at ¶ 37.

<sup>&</sup>lt;sup>11</sup> "Nextel Partners must report, in the Quarterly Report immediately following the benchmark date...for the periods of December 31, 2002 to November 30, 2003, and December 1, 2003 to November 30, 2004, the percentage of new handsets activated nationwide during the respective periods that were A-GPS capable, as well as the total number of new handsets activated nationwide during the respective periods and the total number of new handsets activated during those periods that were A-GPS capable." Nextel's Waiver Order at ¶ 32. The total number of new handsets activated nationwide and the total number of new handsets activated that were A-GPS capable during this period are confidential since Nextel Partners has not yet released its 2003 Fourth Quarter results. Once these numbers are public, Nextel Partners will provide the Commission the activation numbers it requires in the Waiver Order.

<sup>&</sup>lt;sup>12</sup> Per Nextel's Waiver Order, the next deployment benchmark period on which Nextel Partners must report ends on November 30, 2004.

A-GPS enabled handset (despite currently activating nearly 100% A-GPS handsets) will not be achievable. The current software issue affecting all of Nextel Partners' A-GPS handsets has significantly exacerbated this situation for Nextel Partners. Nextel Partners will follow up soon with more information regarding its plans for A-GPS handset penetration by December 31, 2005, once it better understands the challenges associated with upgrading the software in the A-GPS handsets already deployed across Nextel Partners' network and after it has had the opportunity to review the Commission's Order in WT Docket No. 02-55. 13

## C. Phase I Requests

With respect to the Commission's requirement that Nextel Partners provide "information on all pending Phase I and Phase II requests," Nextel Partners has attached an <u>Appendix</u> listing all of its 47 pending Phase I requests and their current status. For each of the on-going Phase I deployment efforts, the <u>Appendix</u> provides, as required by the Commission, the master PSAP registry identification number ("PSAP ID"), PSAP name, PSAP state, PSAP county, request date, whether the request is valid, a projected deployment date, reasons hindering deployment within the first six months of a PSAP's

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<sup>&</sup>lt;sup>13</sup> See FCC Adopts Solution to Interference Problem faced by 800 MHz Public Safety Radio Systems, News Release, WT Docket No. 02-55 (July 8, 2004).

<sup>&</sup>lt;sup>14</sup> See Nextel's Waiver Order at ¶32.

<sup>&</sup>lt;sup>15</sup> On June 6, 2003 the Commission released a Public Notice setting forth uniform requirements governing the Appendix format in which carriers submit Phase I and Phase II deployment information with each Quarterly Report. Per these requirements, Nextel Partners has attached an <u>Appendix</u> listing all of its E911 deployments. *See* Public Notice, *Wireless Telecommunications Bureau Standardizes Carrier Reporting on Wireless E911 Implementation*, CC Docket No. 94-102, rel. June 6, 2003.

request and comments.<sup>16</sup> The proposed deployment dates in the <u>Appendix</u> are projected launch dates, which Nextel Partners and the relevant PSAP are striving to meet. Nextel Partners is in contact with each of these PSAPs and is working to deploy Phase I E911 as soon as possible. Nextel Partners has fully deployed Phase I E911 service with 526 PSAPs, which are listed in the <u>Appendix</u>. With regard to its Phase I deployment efforts, Nextel Partners reiterates herein that in some cases Phase I E911 deployments, similar to Phase II deployments, continue to be complicated by a number of factors – many of which are outside of Nextel Partners' control.

#### D. Phase II Requests

At the same time Nextel is deploying Phase I, it continues to deploy Phase II at those PSAPs capable of receiving and using the specific location information transmitted via Nextel's Phase II solution.<sup>17</sup> The <u>Appendix</u> lists every pending Phase II request and the Commission's required information including the PSAP ID, PSAP name, PSAP state, PSAP county, request date, whether the request is valid, a projected deployment date, reasons hindering deployment within the first six months of a PSAP's request and comments. Nextel Partners has 100 pending Phase II requests and has asked that each of these PSAPs provide the documentation required in the *Richardson Order* for determining the request's validity.<sup>18</sup>

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<sup>&</sup>lt;sup>11</sup> In some cases there are delays caused by technology issues. Such delays do not necessarily mean that the PSAP or Nextel Partners is not "ready" for Phase I service. Rather, it often means there are issues involving incompatible technologies between Nextel Partners, the LEC and/or the PSAP.

<sup>&</sup>lt;sup>17</sup> Nextel Partners has available to PSAPs two different methodologies for transmitting Phase II information—Emergency Service Routing Keys ("ESRK") and Emergency Services Routing Digits ("ESRD").

<sup>&</sup>lt;sup>18</sup> See generally, In the Matter of Revision of the Commission's Rules To Ensure Compatibility with Enhanced 911 Emergency Calling Systems, Petition of City of Richardson, Order On Reconsideration, CC Docket No. 94-102, FCC 01-293, released November 26, 2002. See also, Revision of the Commission's

Similar to Phase I deployments, the proposed Phase II deployment dates in the Appendix are projected launch dates, which Nextel Partners and the relevant PSAP are striving to meet. Nextel Partners reiterates that accomplishing such deployments is subject to numerous factors and parties outside of Nextel Partners' control; thus, Nextel Partners' deployment schedule establishes a goal toward which Nextel Partners will work. It is possible, however, that complexities may be encountered that could delay some PSAP deployments. Nextel Partners is in contact with each of these PSAPs and is working to deploy Phase II E911 as soon as possible within mutually agreed upon time frames. Nextel Partners will continue to dedicate resources to maintain its roll out schedule to PSAPs that are capable of receiving and using location technology.

Since October 14, 2002, its first implementation benchmark, Nextel Partners has deployed Phase II service with 173 PSAPs, which are included in the <u>Appendix</u>. Nextel Partners remains actively engaged with PSAPs at multiple locations and anticipates deploying Phase II service in additional areas in the near future, including Minnesota, Kentucky, Iowa and Virginia, consistent with mutually agreeable timeframes.

Despite successful Phase II deployments in numerous areas such as Illinois, Indiana and Texas, a significant number of PSAPs throughout our licensed territory, are not ready to receive and utilize ALI because of factors some of which are outside a PSAP's direct control, e.g. lack of local, state and federal funding as well as a lack of E911 coordination bodies. Given the status quo, the majority of the remaining PSAPs in our licensed territory likely will not be prepared to receive or use ALI in the foreseeable future.

Rules To Ensure Compatibility with Enhanced 911 Emergency Calling Systems, CC Docket No. 94-102, *Order on Reconsideration*, released Nov. 26, 2002.

#### **CONCLUSION**

As required in the Nextel's Waiver Order, <sup>19</sup> Nextel Partners is providing this Quarterly Report to the Executive Directors and counsel of the Association of Public Safety Communications Officials-International, Inc. ("APCO"), the National Emergency Number Association ("NENA") and the National Association of State Nine One One Administrators ("NASNA"). Should any of these organizations or their individual PSAP members have questions or concerns about Nextel Partners' submission, Nextel Partners encourages them to contact Peter Gaffney, at the number listed below, as soon as possible to facilitate rapid and efficient deployment of Nextel Partners' Phase I and Phase II E911 services.

Respectfully submitted, Nextel Partners, Inc.

By: Original signed

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August 02, 2004

<sup>&</sup>lt;sup>19</sup> Nextel's Waiver Order at ¶32.